A Practical Guidance to Count Absenteeism Loss: A Refined Quantitative Method

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ABSTRACT

This paper presents a quantitative method for counting loss resulting from absenteeism. Employing this method, organizations can estimate hour and financial loss due to absenteeism. Organizations can also estimate both organizational and group absenteeism ratios/rates. This method enables practitioners to obtain more detailed and rigid information for absenteeism management policy. The method consists of eight steps. The analysis was done on a hypothetical case.

Keywords: Absenteeism, A quantitative method, Absenteeism ratios, Absenteeism loss

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The author has proposed the initial version of the quantitative method to count absenteeism loss written in Indonesian (Wijaya, 2000) and the current version has been much developed. An earlier version of this paper has been presented in the 21st International Conference on the Pacific Rim Management organized by the Association for Chinese Management Educators (ACME) and held at National Cheng Kung University, Tainan, Taiwan in July 2011.

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INTRODUCTION

Absenteeism has become a severe problem for many organizations. Obviously, it has been an undeniable issue faced by companies which can result in serious financial and nonfinancial losses (Biron & Bamberger, 2012; Gaudine & Saks, 2001; Ivancevich, Konopaske, & Matteson, 2008; Kocakulah, Kelley, Mitchell, & Ruggieri, 2016; Popp & Belohlav, 1982; Robbins, 2001; Schlotzhauer & Rosse, 1985). For instance, Robbins (2001) stated that absenteeism has resulted in a huge number of financial losses. It has been estimated at over $40 billion for U.S. organizations, $12 billion for Canadian firms, and a one-day absence by a clerical worker can cost a U.S. employer up to $100 in reduced efficiency and increased supervisory workload (Robbins, 2001). More recently, Forbes reported that absenteeism as a consequence of various sickness problems across occupation in the USA has produced $84 billion of loss (Investopedia, 2013).

Because of the negative consequences of employee absenteeism, it is important that organizations keep the rate of absenteeism low (Robbins, 2001; Robbins & Judge, 2011). In a similar vein, Cascio (1991), an important expert in the human resource costing perspective, suggested that most problems related to human resources can be quantified, not to mention absenteeism. Under the perspective, it is believed that all human resource and behaviour-related workforce can be quantified (Cascio, 1991), for example it can be manifested in a monetary unit. More specifically, a significant number of scholars in human resource management field also believe that measuring absenteeism loss is thus imperative for every organization (Byrnes, 1982; Fleten & Johnsen, 2006; Johns & Hajj, 2016; Wijaya, 2000). Without this activity, it is impossible for organizations to control employee absenteeism.

Managers and organizational practitioners need a detailed method for measuring absenteeism loss as well other measures needed for managerial evaluation to decrease absenteeism rate and compare the effectiveness of absence/attendance policy from period to period. More specifically, numerous scholars have shifted their notion on absenteeism from individual to group/team phenomena (Dineen, Noe, Shaw, Duffy, & Wiethoff, 2007; Gellatly, 1995; Hausknecht, Hiller, & Vance, 2008; Markham & McKee, 1995; Xie & Johns, 2000). Although all employees of an organization adopt similar organizational norms corresponding with absenteeism, the levels of absenteeism may vary across groups or teams. It may happen because, for example, supervisory and group norms can influence absence climate in a group (Gaudine & Saks, 2001; Markham & McKee, 1995). Unfortunately, although literature on absenteeism has pay more attention to the importance of group absenteeism, extant methods for counting absenteeism loss have not offered clear procedures in the measurement of group absenteeism (e.g., Cascio, 1991, please see more details in Table 1). To complement prior approaches to counting absenteeism loss, this paper aims at accommodating the notion by offering group level absenteeism ratios and loss. Using this approach, organizations will be able to find out absenteeism situation not only at individual level, but also at group- and organizational level.

The rest of this paper is organized as follows. In the next two sections, this paper reviews prior literature focusing on assessing absenteeism loss and clarifies the definition of absenteeism. After the sections, this paper introduces the procedure and simulation of calculation and how to interpret absenteeism ratios and loss. Finally, the last two sections present discussion and limitations.

LITERATURE REVIEW

Prior Literature on Absenteeism Loss Calculation

Table 1 shows some papers discussing how to calculate absenteeism loss. The table also presents absenteeism elements reported in those papers. Most scholars believe that average salary/wage is a suitable base for counting absenteeism loss. The scholars also agree that it is necessary to report the total loss due to absenteeism. All of them also agree that average time loss (i.e., average absence per employee in hours) is an important absenteeism element. Although, organizational absenteeism rate is regarded as important information (Dalton & Perry, 1981; Markham, 1985), it is indicated that this measure was ignored. Finally, none of them reported group absenteeism condition. To complement the prior method, besides the measures that have been mentioned (e.g., average time loss and average absenteeism loss), this refined method will emphasize the counting and reporting of group and organizational absenteeism figures. It thus enables organizations to observe and manage absenteeism at any level, i.e., individual-, group-, and organizational level.

THE DEFINITION OF ABSENTEEISM

This paper will first present problems in defining absenteeism since the definition influences technical aspects, such as calculation. Absenteeism has been defined in various ways. Cascio (1991) defined absenteeism as "any failure to report for or remain at work as scheduled, regardless of reason". Meanwhile, Flippo (1984) defined absenteeism as "the title given to a condition that exists when a person fails to come to work when properly scheduled to work." The phrase *"as scheduled"* suggests that official leaves or holidays allowed by institutions and other legal or official matters are not included into absenteeism (Allen, 1983; Cascio, 1991). Thus, if a person is off duty due to such purposes, he/she is not absent.

However, such definitions are problematic. The first is the point stating that absenteeism is the physical absence of employees at work. What if employees are apparently present, but they do not carry out their responsibilities? For examples, they are on their desks but playing games or talking about unnecessary things with their friends. They are labelled as *hidden absenteeism* (Cascio, 1991). Other examples are when employees come late, when they take break time earlier, when employees smoke during working hours, and many more. They are then labelled as *temporary absenteeism* (Hausknecht et al., 2008 labelled as short-term absenteism for temporary absenteism). In fact, hidden- and temporary absenteeism are somewhat difficult to observe and data of such absenteeism is hard to obtain. The most common thing to record is when employees are out of office for one or more days. This is called as *absolute absenteeism* (Hausknecht et al., 2008 labelled as long-term absenteism for absolute absenteism). Second, as has been mentioned previously, some scholars have suggested that there are responsible excuses for absenteeism (Allen, 1983). Is absence due to family matters or illness not included? Both responsible or irresponsible excuses still cause similar loss (Harvey & Nicholson, 1999).

Table 1: Summary of Prior Literature on Absenteeism Loss Calculation and Reported Absenteeism Elements

Reference	Cause(s) of absenteeism	Base of counting absenteeism loss	Hours loss		Financial loss (in currency)		Ratio/rate	
			Average	Total	Average	Total	Organizational	Group
Cascio (1991)	Various causes (illness, accident, etc.)	Weighted hourly salary/wage and benefits counted based on approximate % of total absenteeism across occupational groups	√	√	√	√	x	x
Schlotzhauer and Rosse (1985)	NA	Hourly wage	√	x	√	√	x	x
Yaniv (1995)	Burnout/stress conditions	Hourly wage	√	x	√	x	√	x
Godet-Cayré et al. (2006)	Imsomnia	Daily salary	√	x	√	√	x	x
WageGap (2009)	Personal illness, personal business, and others	Paid leave	√	x	√	√	x	x

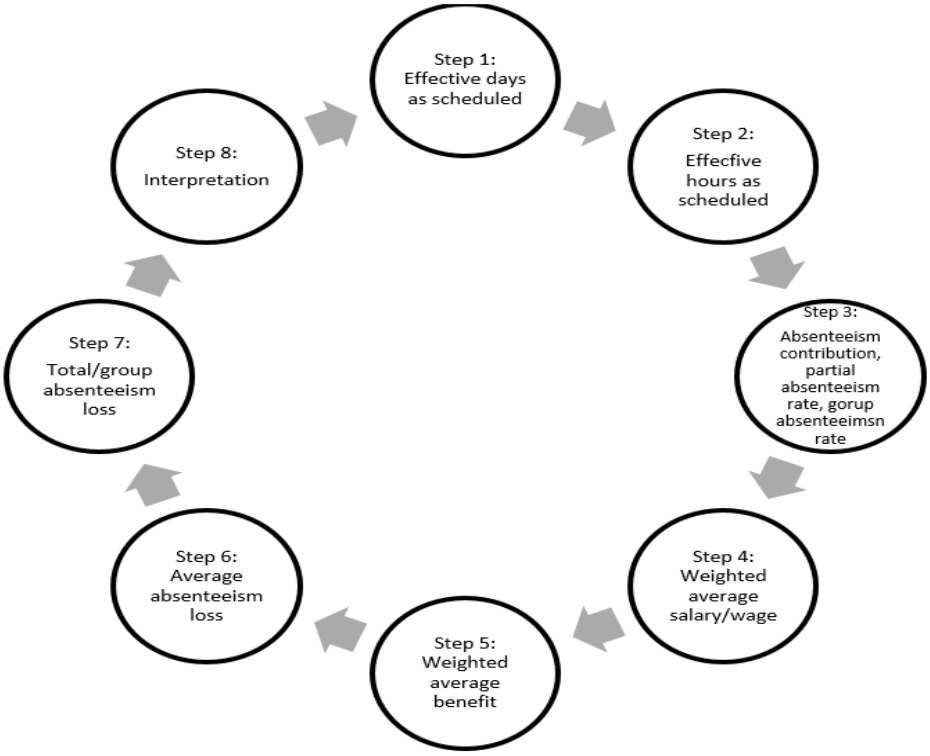
Note: NA = not available, √ = reported, x = unreported.

For technical use, i.e., absenteeism loss calculation, there are three underlying assumptions. The first assumption is to combine Flippo's definition with Cascio's definition. Thus, "absenteeism is a condition where employee does not come up when he/she is supposed to work at the assigned hours". The second assumption is to employ absolute absenteeism as the basic loss calculation. The third is to consider the employment proportion of each group in the calculation of salary or wage and average benefits to get weighted average.

Procedure and Simulation of Calculation

The following is an example of calculation of loss resulted from absenteeism. The analysis uses both fictive company (CAW Corporation) and hypothetical data as the example. There are eight steps in this method. Step 1 - 7 show the process in finding absenteeism ratios and loss. Step 8 focuses on interpreting the findings from the previous steps. The following is the figure showing the eight steps of calculating absenteeism measures. The eight steps are considered to be a loop process which will be done continually.

Figure 1: Calculation Steps



There is additional information other than the mentioned assumptions. First, as the calculation of efficiency loss occurs, CAW Corporation employs 1,000 employees. The number of employees of production group is 700 members, 200 administration staff members, and 100 management staff members. Second, CAW Corporation operates for five days in a week (Saturday and Sunday are weekends) and eight hours in a day. Third, CAW Corporation management provides leaves for employees of all groups for 12 days in a year. Forth, National day offs except Saturday or Sunday are counted as ineffective days.

Step 1: Effective Days as Scheduled

These are the equations for counting the number of effective days as scheduled:

$D = 365 - d$, or (1)

$D = 366 - d$ (2)

Where, D = effective days as scheduled, 365 = days per year (non-leap year), 366 = days per year (leap year), d = ineffective days as scheduled.

Table 2: Calculating the Number of Effective Days as Scheduled

Remark	Days
Number of Days in the Year	366
Number of Saturdays	53
Number of Sundays	53
Number of Company Official Days off	106
Number of allowed days off	12
Number of National Holidays	12
Number of Ineffective Days	130
Number of Effective Days	236

Note: The year is a leap year; number of company official days off = number of Saturdays and Sundays; number of national holiday besides on Saturday or Sunday in the year; number of ineffective days = 106 + 12 + 12 = 130; number of effective days = 366 – 130 = 236.

Year 20xx is leap year, 366 days and company official days offs calculation are 106 days. Meanwhile, the leave allowed by the company is 12 days and non-Saturday and -Sunday National holidays are 12 days. So, the total number of ineffective days is 130 days. If the ineffective days reduce the days in the year, the effective days as scheduled are 236 days (see Table 2).

Step 2: Effective Hours as Scheduled

To calculate effective hours as scheduled (H), the following equation is used:

$H = N\ x\ h\ x\ D$ (3)

Where, H = effective hours as scheduled, N = number of employees, h = hours per day per employee.

Table 3: Calculating the Number of Effective Hours as Scheduled

Number of employees (N_i or N)	Hour per day per employee (h)	Effective days as scheduled per employee (D)	Effective hours as scheduled (H_i or H)
Production	700	8	236	1,321,600
Administration	200	8	236	377,600
Management	100	8	236	188,800
Total	1,000	8	236	1,888,000

Where, Hj = effective hours as scheduled of group j, Nj = number of employees of group j.

As mentioned, CAW Corporation employs 1,000 employees which are categorized into three groups: (1) production group employees – 70%, (2) administration group employees – 20%, and (3) management group employees – 10%. If all employees have the same standard hours (8 hours) and the effective days in a year are 236 days, the effective hours as scheduled for all employees are 1,888,000 hours (see Table 3).

Table 3 shows that the effective hours are designed for all employment groups, namely production, administration, and management groups. The numbers are respectively 1,321,600; 377,600; and 188,800 hours in the related year.

Step 3: Absenteeism Ratios

This part introduces several absenteeism ratios that include absenteeism contribution, group absenteeism rate, partial absenteeism rate, average absenteeism time, organizational absenteeism rate, and effectiveness of hour usage. The absenteeism contribution ($A_{C\text{-}j}$) is absenteeism hours which occur in a certain employment group compared to the overall organizational absenteeism in a year. The partial absenteeism rate ($A_{P\text{-}j}$) is group absenteeism hours compared to the total number of effective hours as scheduled entirely. The group absenteeism rate ($A_{G\text{-}j}$) is the group absenteeism hours compared to the total number of the effective hours as scheduled for a certain group. The average absenteeism time (μ) is the total of absent hours/days of each employee. The organizational absenteeism rate (A) is the measurement showing absenteeism occurrence in an organization at a certain year in percentage. The effectiveness of effective hour usage (E) refers to whether effective hours are well used or not in a company.

To count absenteeism contribution, group absenteeism rate, partial absenteeism rate, average absenteeism time, organizational absenteeism rate, and the effectiveness of effective hour usage, the following equations are used:

$$A_{C-j} = \frac{a_j}{a_t} \tag{4}$$

$$A_{G-j} = \frac{a_j}{H_t} \tag{5}$$

$$A_{P-j} = \frac{a_j}{H} \tag{6}$$

$$\mu = \frac{a_t}{N}\ hours \tag{7a}$$

$$\mu = \frac{\frac{a_t}{N}}{24}\ days \tag{7b}$$

$$\mathrm{A} = \sum_{\mathrm{j}=1}^{\mathrm{n}} \mathrm{A}_{\mathrm{p-j}} \tag{8a}$$

$$\mathrm{A} = \frac{a1}{H}\ x\ 100\% \tag{8b}$$

$$\mathrm{E} = 100\% - \mathrm{A} \tag{9}$$

Where, $A_{C\text{-}j}$ = absenteeism contribution, a_j = absenteeism hours of group j, a_t = total absenteeism hours, $A_{G\text{-}j}$ = group absenteeism rate of group j, j = group name, $A_{P\text{-}j}$ = partial absenteeism rate of group j, μ = average absenteeism time, A = organizational absenteeism rate, n = number of groups, E = effectiveness of effective hour usage, 100% = entire number of effective hours as scheduled in percentage.

It is assumed that absenteeism hours in a year of production group, administration, and management are respectively (1) 168,210; (2) 28,330; and (3) 10,750 hours (see Table 4). The total absenteeism hours is 207,290 hours. Therefore, the total effective hours as scheduled are 1,888,000 hours. Therefore, the number of actual effective hours is 1,680,710 (1,888,000 – 207,290).

Table 4: Calculating Organizational Absenteeism Rate

Effective hours as scheduled (H_i/H)		Absenteeism hours (a_i/a_t)	Absenteeism contribution ($A_{C\text{-}i}$, %)	Group absenteeism rate ($A_{G\text{-}i}$, %)	Partial absenteeism rate ($A_{P\text{-}i}$, %)
Production	1,321,600	168,210	81.15*	12.73	8.91
Administration	377,600	28,330	13.67*	7.50	1.50
Management	188,800	10,750	5.18*	5.69	0.57
Total	1,888,000	207,290	100		
Organizational absenteeism Rate (A, %)					10.98

*Rounded

By using equation 4, the absenteeism contribution of production group can be counted as follows:

$$A_{C-production} = \frac{168{,}210}{207{,}290} = 81.15\%$$

By using the same computation, $A_{C\text{-administration}} = 13.67\%$ and $A_{C\text{-management}} = 5.18\%$.

By using equation 5, the group absenteeism rate of production group can be counted as follows:

$$A_{G-production} = \frac{168{,}210}{1{,}321{,}600} = 12.73\%$$

By using the same computation, $A_{G\text{-administration}} = 7.50\%$ and $A_{G\text{-management}} = 5.69\%$.

Using equation 6, the partial absenteeism rate of production group can be counted as follows:

$$A_{P-production} = \frac{168{,}210}{1{,}888{,}000} = 8.91\%$$

By using the same computation, $A_{P\text{-administration}} = 1.50\%$ and $A_{P\text{-management}} = 0.57\%$

By using equation 7a and 7b, the average absenteeism time can be calculated as follows:

$$\mu = \frac{207{,}290}{1{,}000} = 207.59\ hours$$

$$\mu = \frac{207.59}{24} = 8.65\ days$$

By using equation 8a and 8b, the organizational absenteeism rate can be calculated as follows:

$$A = (8.91 + 1.50 + 0.57)\% = 10.98\%$$

By using equation 9, the effectiveness of effective hour usage can be calculated as follows:

$$E = 100\% - 10.98\% = 89.02\%$$

The effectiveness of effective hour usage can also be counted as follows:

$$E = \left[\frac{H - a_t}{H}\right] x\ 100\% \quad (10)$$

By using equation 10, the effectiveness of effective hour usage can be calculated as follows:

$$E = \left[\frac{1{,}888{,}000 - 207{,}290}{1{,}888{,}000}\right] x\ 100\% = 89.02\%$$

Step 4: Weighted Average Salary/Wage

Salary is given based on annual or monthly calculation while wage is based on hourly rate calculation (Ivancevich, 2007). The weighted average salary/wage (e_{sw}) is counted by summing the multiplication between salary/wage average per group and percentage of the number of employees for each group. The weighted average salary/wage can be counted by using the following equation:

$$e_{sw} = \sum_{j=1}^{n} P_j X_j \quad (11)$$

Where, e_{sw} = weighted average salary/wage, n = number of groups, p_j = employment group proportion of j to total number of employees, X_j = average salary/wage of group j.

Table 5: Calculating Weighted Average Salary/Wage

Employment proportion (P_j, %)	Salary/wage per hour (X_j, $)	Weighted average salary/wage (e_{sw}, $)
Production	70	18.70	13.09
Administration	20	23.50	4.70
Management	10	52.20	5.22
Total	100		23.01

Table 5 shows that the weighted average salary/wage is $23.01. The same result is obtained by using equation 11:

$$e_{sw} = \$((0.70\ x\ 18.70) + (0.20 \text{ x } 12.50) + (0.10 \text{ x } 52.20)) = \$23.01$$

Step 5: Weighted Average Benefit

Benefits are indirect financial and non-financial payments employees receive for continuing their employment with a company (Dessler, 2008). Because this calculation emphasizes on financial loss, only financial benefits are used in the analysis. Several organizations apply benefit structures as certain percentages of pay structures. If benefits can be predicted based on certain percentage of salary/wage, equation 11 can be employed. Average salary/wage of each group (X_j) should be first counted, for example, CAW Corporation, (1) 30% of basic salary/wage for production employees, (2) 35% of basic salary/wage for production employees, and (3) 45% of basic salary/wage for management employees. In this case, the weighted average benefit of the employees (e_b) can be counted with the following equation:

$$e_b = \sum_{j=1}^{n} P_j X_j p_j \quad (12)$$

Where, e_b = weighted average benefit, P_j = proportion of group j employees to number of total employees, X_j = average salary/wage of group j, p_j = benefit proportion to salary/wage of group j employees.

If the benefit data of each group (Y_j) are already available, the weighted average benefit of the employees can be counted as follows:

$$e_b = \sum_{j=1}^{n} P_j Y_j \quad (13)$$

Where, Y_j = average benefit of group j employees.

Table 6: Calculating Weighted Average Benefit

Employment proportion (P_i, %)	Salary/wage per hour (X_i, $)	Benefit proportion to salary/wage (p_i, %)	Employment benefit* (Y_i, $)	Weighted average benefit (e_b, $)
Production	70	18.70	30	5.61	3.93*
Administration	20	23.50	35	8.23*	1.65*
Management	10	52.20	45	23.49	2.35*
Total					7.93

*Rounded

Table 6 demonstrates the calculation for getting the weighted average benefit. It shows that the value is $7.93.

Step 6: Average Absenteeism Loss

Average absenteeism loss (λ) shows how much direct efficiency loss per hour is suffered by a company. The equation for average absenteeism loss is as follows:

$$\lambda = e_{sw} + e_b \quad (14)$$

Where, λ = average absenteeism loss.

By using equation 14, the direct absenteeism loss per hour is

$$\lambda = 23.01 + 7.93 = \$30.94$$

Step 7: Total and Group Absenteeism Loss

Total absenteeism loss (L) is average absenteeism loss multiplied by total absenteeism hours in related year. Total absenteeism loss indicates loss due to total absenteeism suffered by a company. Moreover, L_j shows loss due to group absenteeism occurring in each group. The equations used are:

$$L = \lambda \; x \; a_i \quad (15)$$
$$L_j = L \; x \; A_{C-j} \quad (16)$$

Where, L = total absenteeism loss, L_j = group absenteeism loss.

By using equation 15 and 16:
L = 30.94 x 207.290 = $6,413,553*
$L_{production}$ = 6,413,553 x 81.15%= $5,204,598*
$L_{administration}$ = 6,413,553 x 13.67% = $876,733*
$L_{management}$ = 6,413,553 x 5.18% = $332,222*
*Rounded

Step 8: Interpretation

The calculation conducted will provide meaningful information and be easy to understand if it comes to interpretation of the absenteeism ratios and loss. The interpretation is then used by the top management as a decision making tool in relation to controlling absenteeism. Table 7 shows the summary of calculation results (year 20xx):

Table 7: Recapitulation of Calculation Results

Remark	Unit	Notation	Result
Number of employees	Person	N	1,000
Effective days as scheduled	Day	D	236
Effective hours as scheduled	Hour	H	1,888,0
			00
Total absenteeism hours	Hour	a_t	207,290
-Production		a_j	168,210
-Administration			28,330
-Management			10,750
Absenteeism contribution	%	A_{C-j}	
-Production			81.15
-Administration			13.67
-Management			5.18
Group absenteeism rate	%	A_{G-j}	
-Production			12.73
-Administration			7.50
-Management			5.69
Partial absenteeism rate	%	A_{P-j}	
-Production			8.91
-Administration			1.50
-Management			0.57
Average absenteeism time	Hour/day	μ	207.59
			8.65
Organizational absenteeism rate	%	A	10.98
Effectiveness of effective hour usage	%	E	89.02
Weighted average salary/wage	$	e_{sw}	23.01
Weighted average benefit	$	e_b	7.93
Average absenteeism loss	$	ℓ	30.94
Total absenteeism loss	$	L	6,413,5
-Production		L_j	53
-Administration			5,204,598
-Management			876,733
			332,222

Absenteeism contribution (A_{C-j}) shows absenteeism proportion (%) of one employment group compared to total absenteeism in the related year. The above information also displays the fact that the contribution of absenteeism for production employee, administration, and management group is 81.15%; 13.67%; and 5.18% respectively. This proportion explains that the biggest event happened to 81.15% of the production employee group.

Group absenteeism rate (A_{G-j}) illustrates how effective hours as scheduled for one employment group were violated by the same group. In other words, this measurement describes how much absenteeism occurs compared to effective hours as scheduled for

certain groups. At CAW Corporation, $A_{G\text{-production}} = 12.73\%$, means that 12.73% of effective hours as scheduled at this group were unfulfilled.

Partial absenteeism rate ($A_{P\text{-}j}$) measures the amount of absenteeism of each group. However, this measurement emphasizes more on comparing the amount of absenteeism of each group to the effective working hours as scheduled by the company as a whole. The result of calculation for $A_{P\text{-production}}$, $A_{P\text{-administration}}$ and $A_{P\text{-management}}$, is 8.91%; 1.50%; and 0.57% respectively. The partial absenteeism rate for the administration group is 1.50%, meaning that the administration group contributes 1.50% to the organizational absenteeism rate.

Organizational absenteeism rate (A) is 10.89%. This percentage indicates that the effective hours as scheduled by the company in 20xx are not fulfilled. The effectiveness of effective hour usage (E) as scheduled reaches 89.02%. The bigger the effectiveness of effective hour usage is, the better it is. Finally, the total amount of absenteeism loss is $6,413,553. The largest amount of the total absenteeism loss is contributed by the production department ($5,204,598). It means that the management of this company should focus on lessening the level of absenteeism of this department. Overall, the amount of total absenteeism loss directly corresponds with the level of organizational absenteeism rate. If the organization wants to decrease the total loss in the next period, the organization needs to lessen the level of organizational absenteeism rate.

DISCUSSION

This paper offers eight steps of a quantitative method for calculating loss due to absenteeism. The amount of cost consequence due to absenteeism motivates the researcher to write this paper (e.g., Ivancevich et al., 2008). The operational definition which is suggested in this paper implies that all absenteeism possibilities cause similar loss, although there is a responsible and sensible excuse over absenteeism. Reisenwitz (1997) noted that sick leave turns out to be the most used excuse. Similarly, Harvey and Nicholson (1999) found that employees might use "minor illness" as "legitimate reason for absence" (see also Boles & Sunoo, 1998; Caverley, Cunningham, & MacGregor, 2007; McConnell, 1995).

This method offers important practical implications for line managers or more specifically human resource managers. This method emphasizes on counting weighted average salary/wage and weighted average benefit, especially when the differentiation of each group's employment proportion is significant. Weighted average turns out to result in a more accurate calculation. Besides, this method tries to accommodate perspective change over absenteeism from an individual- to a group behavior (e.g., Hausknecht et al., 2008; Markham & McKee, 1995). For example, in this method, a company is able to observe group behavior through the absenteeism contribution, group absenteeism rate and partial absenteeism rate. Having been illustrated by the calculation, it can be seen that one employment group deteriorates in members' presence performance compared to other employment groups. This will help managers focus on control over the related group. Therefore, the overall rate of organizational absenteeism can be diminished.

The calculation may depict the condition of company absenteeism. Thus, the decision maker can take necessary actions. For example, why the organizational absenteeism rate increases from 10% to 11%? Which employment group or unit gives the biggest

contribution? What excuses are used by those who are absent? What action should take place? Managers seem to have some influences over attendance behavior through giving punishment, establishing bonus systems, and allowing participation in developing plans (Ivancevich et al., 2008). Allen (1983) suggested that the loss estimation can be preceded by some public policy, occupational safety, environmental protection, and facilities. Moreover, Gaudine and Saks (2001) pointed out that management intervention is very crucial due to the high cost of absenteeism for organizations and the society. Even a small reduction in absenteeism can result in significant savings.

In accordance to the implementation, firstly, I suggest that this method should be adjusted to organizations' conditions. For example, a company may not need to follow group distribution as illustrated before. The company can modify the distribution based on department, unit, geography, or demography (e.g., gender, age, and race). Another kind of modification underlies the definition of 'direct financial payment' in a more widely-used manner than 'wages/salary' is (Dessler, 2008). Company can utilize other financial payments into the calculation, such as incentives, commissions, and bonuses. Secondly, this method will only be effective if it is internalized inside the organization culture (e.g., working norms and discipline) and effective human resource policy (Gellatly, 1995). Lastly, the related issues toward work satisfaction need to be the main concern of both individual (e.g., Scott & Taylor, 1985) and group satisfaction (Dineen et al., 2007) since it empirically influences organizational absenteeism rate. Last but not least, data play an important role. Without absenteeism data, the calculation of absenteeism loss cannot be done. Therefore, data management needs improvement if necessary.

Prior research examined various predictors of absenteeism (Biron & Bamberger, 2012; Caverley et al., 2007; Staufenbiel & König, 2010). Most scholars have measured absenteeism through the assessment of hours/days loss during a certain period (e.g., Biron & Bamberger, 2012). It is obvious that this quantitative approach contributes to research on the related topic by giving alternative measures to predict organizational/unit absenteeism, in addition to individual absenteeism measures (Gellatly, 1995). Moreover, when researchers use the total absenteeism hours/days for measuring organizational absenteeism and they are used to compare the absenteeism conditions of other organizations, it results in biased information, because each organization may have different numbers of employees. The use of the relative measures such as organizational- and group absenteeism rates makes the levels of absenteeism across organizations become more comparable, because they regard the number of employees as being related to the number of scheduled effective hours. Moreover, the number of employees across groups may be different. Therefore, the relative measures for groups are more suitable when managers need to compare absenteeism conditions among groups.

LIMITATIONS

Even though this method is simple and practical, it still has a number of weaknesses. Firstly, this method uses the absolute absenteeism. However, in reality the company will face hidden and temporary absenteeism which look like "an iceberg". This quantitative method, therefore, cannot touch the overall absenteeism problems (e.g., hidden/temporary absenteeism). As previously mentioned, it is because such types of absenteeism cannot be easily observed. This method employs absenteeism unit in hour to anticipate if organizations can estimate the number of hour loss due to hidden/temporary absenteeism.

When this condition could be achieved, organizations may include the estimation in the calculation. Alternatively, organizations can develop a culture-related absence behavior. Organizations can also develop team leaders' roles in absence norms dissemination to modify members' absence behavior. The efforts should help more in lessening the amount of hidden/temporary absenteeism hours.

Secondly, this method is merely based on salary/wage and benefits as the basic loss calculation. Allen (1983) suggested that absenteeism is not only about salary or benefits loss, but also company loss because there are some adjustments conducted in some areas, such as, working employee overtime, assigning workers from other positions, or hiring temporary replacement. The other possible costs are overdue claim cost from clients, declined assets utility, declined productivity, and increased control. Moreover, Gaudine and Saks (2001) suggested that absenteeism might disturb product and service quality because those who are absent are irreplaceable. Organizations may need to further investigate the other consequences resulted from absenteeism.

Lastly, this method might possibly be conceived as an 'oversimplification' of what truly happens in the real world. As a matter of fact, the amount of compensation, including salary/wage and benefits, derives from the tenure system. It makes employees within a certain grade, such as production, administration, and so on, similarly unstructured in terms of salary/wage structure. Moreover, those companies operating in many countries or regions may have different compensation policies which comply with relevant government regulations and costs of living (Dessler, 2008). The other issue is related to short-term human resource policies (e.g., overtime work, temporary employment), corporate human resource rules (e.g., periodic compensation raise, structural rank or grade raise), and minimum wage regulated by government. These problems may result in a calculation of absenteeism loss which is more complicated than the calculation presented in this paper.

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